



Proximity of Participants to Research: Representation of Rural Older Adults with Parkinson Disease



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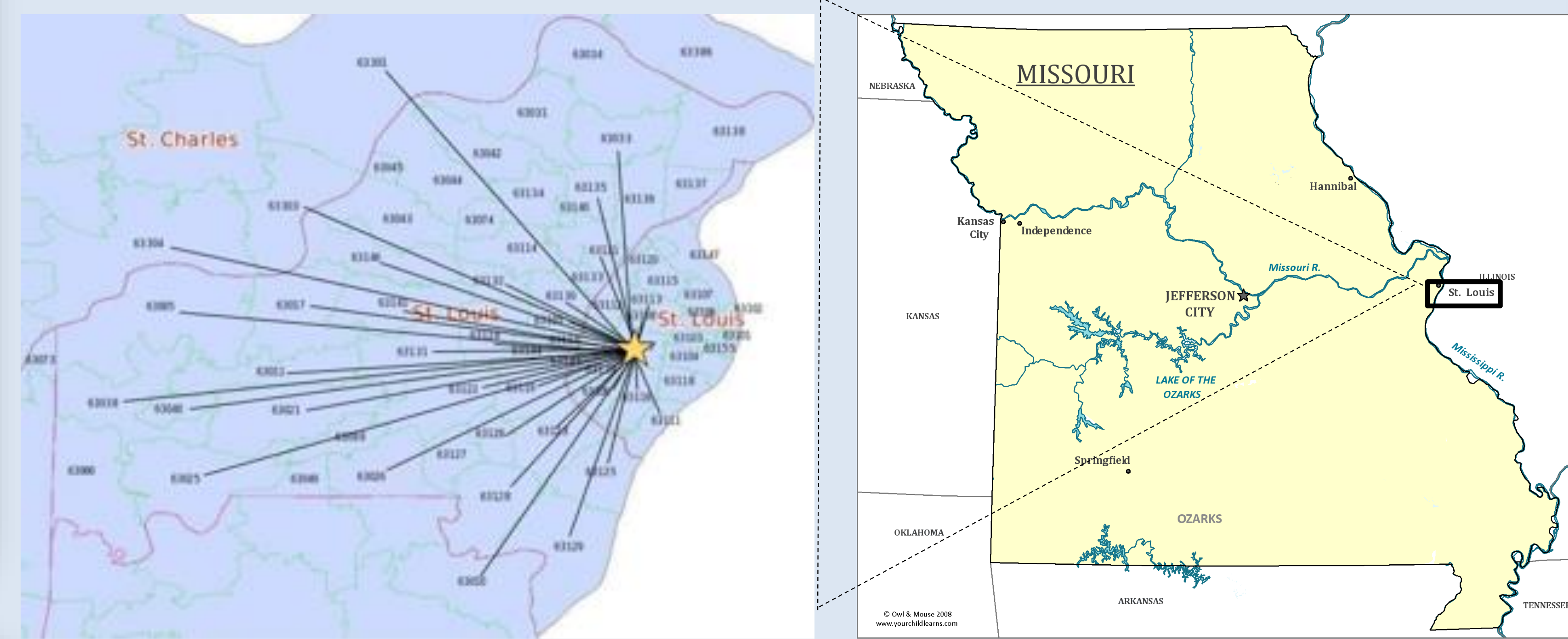
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Background

- Parkinson Disease (PD) is a chronic neurodegenerative disorder affecting both motor and nonmotor systems.
- There are currently as many as one million Americans living with PD and an additional 60,000 cases diagnosed each year [6].
- For individuals with PD, increasing evidence indicates that exercise may improve gait-related measures such as walking speed, stride length, balance, and mobility [1][2][3][4]
- Many older adults experience limited physical mobility, loss of driving ability, and increased distance from or limited access to an exercise facility [7].
- Rural dwelling individuals tend to be underrepresented in clinical trials compared to urban dwelling individuals [5]
- Researchers found there to be no difference between rural and urban populations in willingness to participate in clinical trials, however, rural populations perceive having limited access to information regarding clinical trials.

Results

- N = 114
- 0% of the studied sample of seniors living with PD were rural dwelling
- Mean distance traveled: 16.51 miles (SD = 9.42)
- Maximum distance traveled: 43.2 miles



Discussion/Conclusion

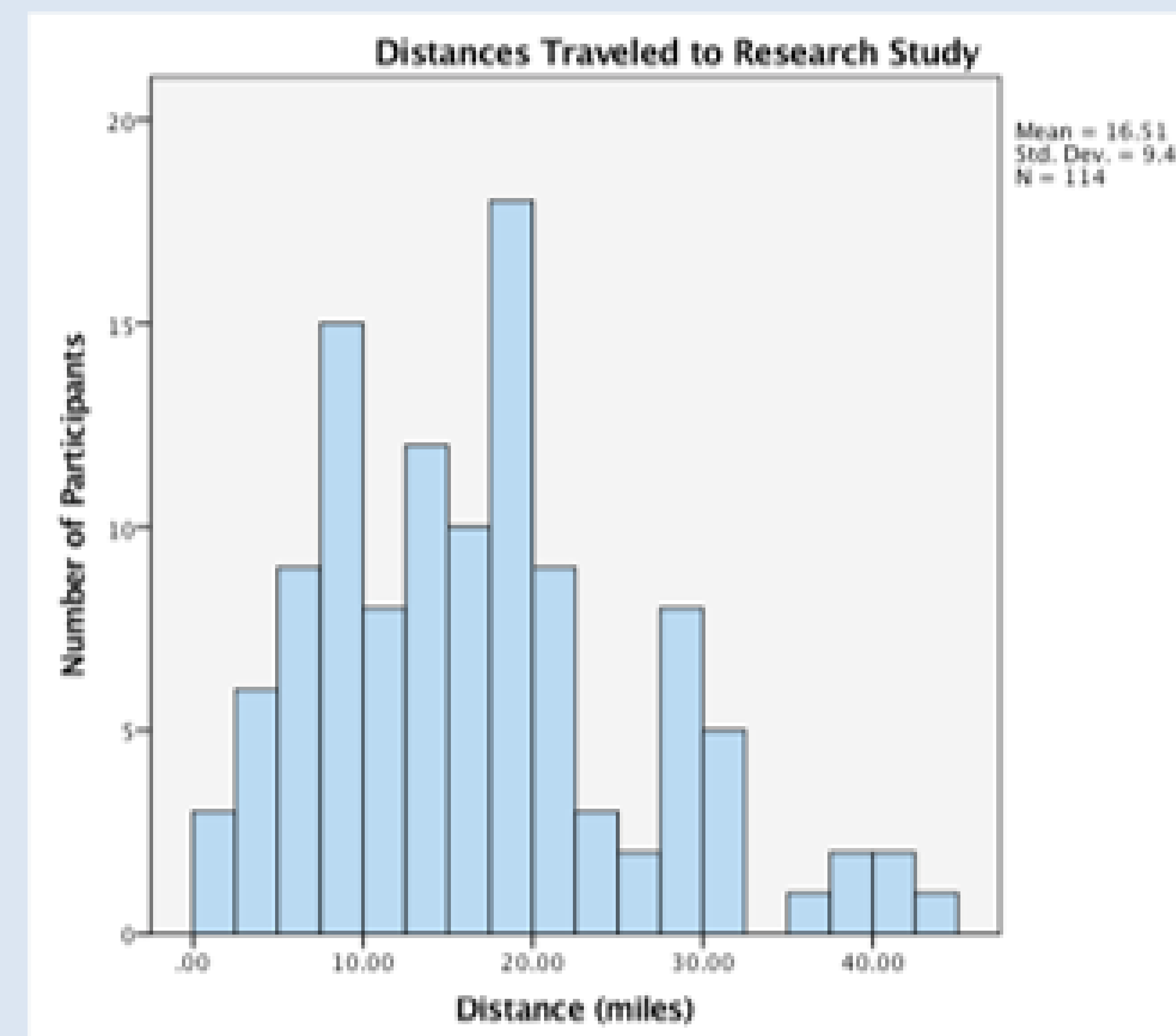
- In 2005, 9,462.54 people/100,000 among Medicare beneficiaries 65 or older with PD in US = 9.46% prevalence rate [9].
- 335,228 or 16.3% of the Missouri 2010 population is rural dwelling and 65+ [8].
- Extrapolating these statistics, there were approximately 31,712 rural dwelling seniors living with PD in Missouri that were not represented within the sample.
- Rural and urban dwellers equally willing to participate [5]. Urban dwellers in sample traveled greater than 30 miles in many instances (up to 43.2)--indicating that distance isn't necessarily a factor in deterring rural dwellers from participating.
- Original study yielded insignificant benefits to these urban dwelling PD participants.
- Living in urban areas provides greater access to exercise facilities – could already be near peak fitness
- Original study may have yielded significant benefits for rural dwelling seniors with PD – could have more room to improve

Methods

- Data from (Number of participants) were used for this study
- Recruitment info
- Full inclusion/exclusion criteria
- Exclusion of Illinois zip codes (mean distance and population).
- The study question compared the effects of Argentine Tango, treadmill walking, and guided stretching interventions and was conducted as Washington University School of Medicine in St. Louis, Mo.
- Identification of whether or not participant zip codes were within urban or rural clusters (Missouri Census Data Center) gave us the percent rural vs. urban within the sample.
- The percent of rural dwelling participants was then compared to the national percentage of urban dwelling seniors living with PD.
- Descriptive analysis quantify the extent to which a large scale, R01 funded research study recruited from the rural population of individuals with PD

Implications

- Not including the rural dwelling population limits the generalizability to many areas of research
- Interventions found to be ineffective for urban dwellers may be effective for rural dwellers
- If research on effective exercise interventions for PD only includes and accommodates urban dwellers, the unique needs and experiences of rural dwellers are not being met
- This can lead to research outcomes that are not effective for rural dwellers
- Additionally, it is quite possible that rural dwellers do not learn of the progress science has made in the treatment of PD related symptoms using various forms of exercise



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References

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